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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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BANNER & WITCOFF
1001 G STREET N W
SUITE 1100
WASHINGTON, DC 20001

EXAMINER

HUYNH, SON P

ART UNIT	PAPER NUMBER
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2611

13

DATE MAILED: 04/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/274,953

Applicant(s)

BEN-BASSAT ET AL.

Examiner

Son P Huynh

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2003.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-23 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-4 and 6-23 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 23 March 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 10-16, 18-23 have been considered but claims 6-23 are not persuasive. Claims 1-4, 6-9, 17 are moot in view of the new ground(s) of rejection.

Applicant argues Naiff does not teach conveying radio frequency signals to the antenna; Claim 10 depends from claim 1, and transmitting the radio frequency signal from the card to an antenna. The examiner respectfully disagrees.

It is noted that claim 10 is an independent claim. It does not depend from claim 1 (page 3). Furthermore, Naiff discloses transceiver 116 receives television and two-way control signals from the PC via a similar (e.g., RF path), a simple antenna, which is coupled to a transceiver on the television interface card 40 installed in the PC 20. The transceiver provided on the television on the television interface card will be the counter part of transceiver 116 (col. 9, line 18+ and figure 6). Naiff further discloses communication with Internet and/or the television provider can be accommodated by an RF return path via coaxial or optical fiber cables 16, 10 (col. 6, line 29+) and the cables 16,10 are coupled to a satellite transceiver antenna (figure 4). As a result, the RF signals on the return path are transmitted to a satellite by a satellite transceiver antenna. Clearly, Naiff teaches conveying radio frequency signals to the antenna or transmitting the radio frequency signal from the card to an antenna (the antenna as claimed is met by either

Art Unit: 2611

simple antenna that receive television RF signal from transceiver on the card or the satellite transceiver antenna that receive RF return signals from the card).

For reason given above, the rejections for claims 1-4, 6-23 are discussed below.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 6, 10, 15-16 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Naiff (US 5,982,363).

Regarding claim 6, Naiff teaches a card (40 –figure 3) for a personal computer (20-figure 4), comprising:

a circuit board which plugs into the personal computer and which is coupled to exchange data via an industry-standard bus (PCI) in the personal computer (see figure 3); radio frequency modulator circuitry on the circuit board that receives the data and transmits radio frequency signals responsive thereto (television interface (card 40)

Art Unit: 2611

includes means for modulating the television signals on a carrier for output to the television appliance on a standard television channel frequency – col. 2, line 66+; the card 40 receives data from television service provider, processes and transmits the television signal to television via transceiver on the card and simple antenna. The card further receives data from user and transmits the data to the television service provider by an RF return path using telephone connection or satellite transceiver (col. 5, line 10+ and figures 3-4); wherein the modulation circuitry is coupled to convey the radio frequency signals to the antenna (either simple antenna for transmitting radio frequency signal to television or satellite transceiver antenna for transmitting RF return signal to television service provider) via the connector.

Regarding claim 10, Naiff teaches a card (40 –figure 3) for a personal computer (20-figure 4), comprising:

a circuit board which plugs into the personal computer and which is coupled to exchange data via an industry-standard bus (PCI) in the personal computer (see figure 3); radio frequency modulator circuitry on the circuit board that receives the data and transmits radio frequency signals responsive thereto (television interface (card 40) includes means for modulating the television signals on a carrier for output to the television appliance on a standard television channel frequency – col. 2, line 66+; the card 40 receives data from television service provider, processes and transmits the television signal to television via transceiver on the card and simple antenna. The card further receives data from user and transmits the data to the television service provider

Art Unit: 2611

by an RF return path using telephone connection or satellite transceiver (col. 5, line 10+ and figures 3-4); wherein the radio frequency signals are transmitted to a satellite (figure 4 and col. 6, line 29+).

Regarding claim 15, the elements of the method correspond to the element of the transmitter card being claimed in claim 6 and are analyzed as discussed with respect to the rejection of claim 6.

Regarding claim 16, Naiff discloses the application software resident in the PC controls various functions of the card; the application software also used to tune to channels requested by a user via remote control (see col. 6, lines 57-63). Necessarily, the conveying data to the card comprises determining a frequency band of the radio frequency signal.

Regarding claim 21, the elements of the method being claimed correspond to the elements of the card being claimed in claim 10 and are analyzed as discussed in the rejection of claim 10.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2611

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 7, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naiff (US 5,982,363), and in view of Dillon (US 5,699,384).

Regarding claim 1, Naiff teaches a card (40 –figure 3) for a personal computer (20-figure 4), comprising:

a circuit board which plugs into the personal computer and which is coupled to exchange data via an industry-standard bus (PCI) in the personal computer (see figure 3); radio frequency modulator circuitry on the circuit board that receives the data and transmits radio frequency signals responsive thereto (television interface (card 40) includes means for modulating the television signals on a carrier for output to the television appliance on a standard television channel frequency – col. 2, line 66+; the card 40 receives data from television service provider, processes and transmits the television signal to television via transceiver on the card and simple antenna. The card further receives data from user and transmits the data to the television service provider by an RF return path using telephone connection or satellite transceiver (col. 5, line 10+ and figures 3-4); Naiff further discloses the card is coupled to an external antenna system (simple antenna or satellite transceiver antenna- figure 4 and col. 6, line 20+), the card is processes using power supply in PC 20 (col. 5, line 42+). Inherently, the card comprises a connector connected to power supply in PC 20. However, Naiff does not

Art Unit: 2611

specifically disclose a DC source external to the card powers the antenna system through the connector.

Dillon teaches the power supply in 126 in PC102 provides power to DC-DC converter 136 in adaptor card 124, the DC-DC converter then passes the power to LNB 112 in antennal 110 (figures 1-3 and col. 3, line 31+). Necessarily, the DC power is provided to antenna 110 through the connector of the card. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Naiff to use the teaching as taught by Dillon in order to reduce power lost.

Regarding claim 7, Naiff in view of Dillon teaches a card as discussed in the rejection of claim 1. Naiff further discloses the application software in the PC controls the various functions of the television interface card 40, including generation of electronic program displays from data provided by the television system operator. It would have been obvious to one of ordinary skill in the art to modulate the transmitted signals according to a predetermined protocol in order to improve efficiency in data processing.

Regarding claim 17, Naiff teaches a method as discussed in the rejection of claim 15. However, Naiff does not specifically disclose powering an antenna system external to the card via power connector mounted on the card.

Dillon teaches the power supply in 126 in PC102 provides power to DC-DC converter 136 in adaptor card 124, the DC-DC converter then passes the power to LNB 112 in

Art Unit: 2611

antennal 110 (figures 1-3 and col. 3, line 31+). Necessarily, an antenna system external to the card is powered via power connector mounted on the card. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Naiff to use the teaching as taught by Dillon in order to reduce power lost.

6. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naiff (US 5,982,363) in view of Dillon (US 5,699,384) as applied to claim 1 above, and further in view of Cirineo (US 5,982,167).

Regarding claim 2, Naiff in view of Dillon teaches a method as discussed in the rejection of claim 1. Naiff further discloses the peripheral card comprises components such as a tuner with associated television signal processing circuit which tunes to requested channel based on the signal input from the remote control, the selected channel is accessed by access control circuitry; audio/video decompression circuitry; video and audio multiplexers; upconverter for outputting RF signal to user's television (see col. 5, lines 49-60). In addition, Naiff discloses the telephone return port 64 of peripheral card 40 communicates to service provider using RF return path (see col. 8, lines 6-13) and peripheral card 40 communicates to the television using RF signal transmission (see col. 9, lines 19-42). However, neither Naiff nor Dillon explicitly discloses the peripheral card 40 comprises frequency synthesizer generating the radio frequency signals. Cirineo discloses a transmitter card comprises radio frequency synthesizer 30 generating the radio frequency signal (see figure 2). Therefore, it would have been

obvious to one of ordinary skill in the art at the time the invention was made to modify Naiff and Dillon to use the teaching as taught by Cirineo in order to allow communications between devices using radio frequency thereby increase efficiency in data transmission.

Regarding claim 3, Naiff discloses application software in the PC controls various functions of the television interface card 40 via bus control 86; the application software also used to tune o channels requested by a user via the remote control 26 (see col. 6, lines 57-63 and figure 3). Necessarily, the frequency generated by the frequency synthesizer is set by a controller on the circuit board.

Regarding claim 4, Naiff discloses the application software control various functions of the television interface card 40 via bus controller 86 (see col. 6, lines 57-63 and figure 3). Necessarily, the frequency generated by the frequency synthesizer is set by conveying instructions via the computer bus.

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Naiff (US 5,982,363) and Dillon (US 5,699,384) as applied to claim 1 above, and in view of Bock et al. (US 5,953,418).

Regarding claim 8, Naiff in view of Dillon teaches a card as discussed in the rejection of claim 1. However, neither Naiff nor Dillon specifically discloses the modulation circuitry

Art Unit: 2611

comprises an encoder which encodes error correction into the transmitted signals according to a predetermined protocol in accordance with a command conveyed to the card via the industry standard bus.

Bock et al. discloses signal processor 68 in transmitter card 62 comprises encoder (error correction 92) that encodes error correction into the transmitted signals (see figure 3). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Naiff and Dillon to use the teaching as taught by Block in order to allow the receiver to correct transmission errors.

8. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Naiff (US 5,982,363) as applied to claim 15 above, and in view of Bock et al. (US 5,953,418).

Regarding claim 19, Naiff teaches a method as discussed in the rejection of claim 15. However, Naiff does not specifically disclose the modulation circuitry comprises an encoder which encodes error correction into the transmitted signals according to a predetermined protocol in accordance with a command conveyed to the card via the industry standard bus.

Bock et al. discloses signal processor 68 in transmitter card 62 comprises encoder (error correction 92) that encodes error correction into the transmitted signals (see figure 3). Therefore, it would have been obvious to one of ordinary skill in the art at the

Art Unit: 2611

time the invention was made to modify Naiff and Dillon to use the teaching as taught by Block in order to allow the receiver to correct transmission errors.

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Naiff (US 5,982,363) and Dillon (US 5,699,384) as applied to claim 1 above, and further in view of Goldman et al. (US 5,592,366).

Regarding claim 9, Naiff in view of Dillon teaches a card as discussed in the rejection of claim 1. However, neither Naiff nor Dillon specifically discloses the card is coupled to at least one other card located in the computer such that signals pass between the cards without passing through the industry standard bus.

Goldman et al. discloses the card comprises an auxiliary connector through which the card is coupled to at least one other card located in the computer such that signals pass between the cards without passing through the industry standard bus (see col. 4, lines 51-57). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Naiff and Dillon to use the teaching as taught by Goldman et al. in order to allow the card communicates directly to the other cards thereby increase efficiency of the system.

10. Claims 11-14, 20, and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naiff (US 5,982,363), and in view of Goldman et al. (US 5,592,366).

Regarding claim 11, Naiff teaches a radio frequency (RF) communication card (40-figure 3) for a personal computer (20-figure 3), comprising:

a circuit board which plugs into the personal computer and which is coupled to exchange data via an industry-standard bus (PCI) in the personal computer (see figure 3); RF circuitry on the circuit board (card 40) that receives the data and transmits radio frequency signals responsive thereto (the card 40 receives data from television service provider, processes and transmits the television signal to television via transceiver on the card and simple antenna. The card further receives data from user and transmits the data to the television service provider by an RF return path using telephone connection or satellite transceiver (col. 5, line 10+ and figures 3-4);

an antenna (either simple antenna for transmitting radio frequency signal to television or satellite transceiver antennal for transmitting RF return signal to television service provider-figure 4) connected the circuit board, wherein the antenna transmits RF signals received from circuit board (col. 6, line 20+). However, Naiff does not specifically disclose the card is coupled to at least one other card located in the computer such that signals pass between the cards without passing through the industry standard bus.

Goldman et al. discloses the card comprises an auxiliary connector through which the card is coupled to at least one other card located in the computer such that signals pass between the cards without passing through the industry standard bus (see col. 4, lines 51-57). Therefore, it would have been obvious to one of ordinary skill in the art at the

Art Unit: 2611

time the invention was made to modify Naiff to use the teaching as taught by Goldman et al. in order to allow the card communicates directly to the other cards thereby increase efficiency of the system.

Regarding claim 12, Goldman teaches the card is coupled to a receiver card. The receiver card receives the bus signals from the transmitter card and routes them to the backplane (see col. 4, lines 51-57). It would have been obvious to one of ordinary skill in the art that the communication card convey a synchronizing signal via the auxiliary connect in order to increase efficiency of the system.

Regarding claim 13, the limitations of the satellite transceiver correspond to the limitations of the communication card as claimed in claim 11 and are analyzed as discussed in the rejection of claim 11.

Regarding claim 14, Naiff in view of Goldman teaches a transceiver as discussed in the rejection of claim 13. Goldman further discloses the transmitter card is coupled to the receiver card by a pair of shielded cables (see col. 4, lines 51-57). Necessarily, the transmitter card and the receiver card comprise respective connectors coupling the cards to the auxiliary bus.

Regarding claim 20, Naiff teaches a method as discussed in the rejection of claim 15. However, Naiff does not specifically disclose the transmitter card is coupled to at least

Art Unit: 2611

one other card via an auxiliary connector such that signals pass between the cards without passing through the industry standard bus.

Goldman et al. teaches the card is coupled to at least one other card via an auxiliary connector such that signals pass between the cards without passing through the industry standard bus (see col. 4, lines 51-57). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Naiff to use the teaching as taught by Goldman et al. in order to allow the card communicates directly to the other cards thereby increase efficiency of the system.

Regarding claims 22 -23, the limitations of the method as claimed correspond to the limitations of communication card in claims 11-12 respectively and are analyzed as discussed in the rejection of claims 11-12.

11. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Naiff (US 5,982,363).

Regarding claim 18, Naiff teaches a method as discussed in the rejection of claim 15. Naiff further discloses the application software in the PC controls the various functions of the television interface card 40, including generation of electronic program displays from data provided by the television system operator. It would have been obvious to one

Art Unit: 2611

of ordinary skill in the art that the signal is modulated with a modulation scheme determined responsive to a command in order to improve efficiency in data processing.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Isley, Jr. et al. (US 5,930,295) teaches mobile terminal apparatus including net radio service in a mobile satellite service communication system.

Ollikainen et al. (US 6,377,981) teaches modular digital data communication cyberstation and cyberserver.

Kinney et al. (US 5,991,864) teaches power connectors, antenna connectors and telephone line connectors for computer devices utilizing radio and modem cards.

Laubach et al. (US 6,075,972) teaches CATV network and cable modem system having a wireless return path.

Widmer et al. (US 6,169,569) teaches cable modem tuner.

Yen (US 5,880,721) teaches radio computer audio-video transmission device.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

Art Unit: 2611


mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son P Huynh whose telephone number is 703-305-1889. The examiner can normally be reached on 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile can be reached on 703-305-4380. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Son P. Huynh
March 23, 2004



VIVEK SRIVASTAVA
PRIMARY EXAMINER